

REMARKS/ARGUMENTS

This amendment is responsive to the Office Action dated July 23, 2004. Claims 15 - 20 were previously pending in the application. Claims 15 – 20 stand rejected. By way of this amendment, the Applicant has cancelled Claims 18 and 20, amended Claims 15, 16, and 19, and added Claims 21 - 27. Accordingly, Claims 15 – 17, 19, and 21 – 27 are currently pending.

Rejections Under 35 U.S.C. §112, Second Paragraph

Claims 16 and 19 stand rejected under 35 U.S.C. §112, second paragraph as being indefinite. Specifically, dependent claims 16 and 19 referred to a “silicon oligomer” without antecedent basis. As amended, Claims 16 and 19 both refer to the photosensitive compound of Claim 15, and both have been amended to specifically refer to the “organic oligomer” as recited in Claim 15, thereby overcoming the 35 U.S.C. §112 rejection.

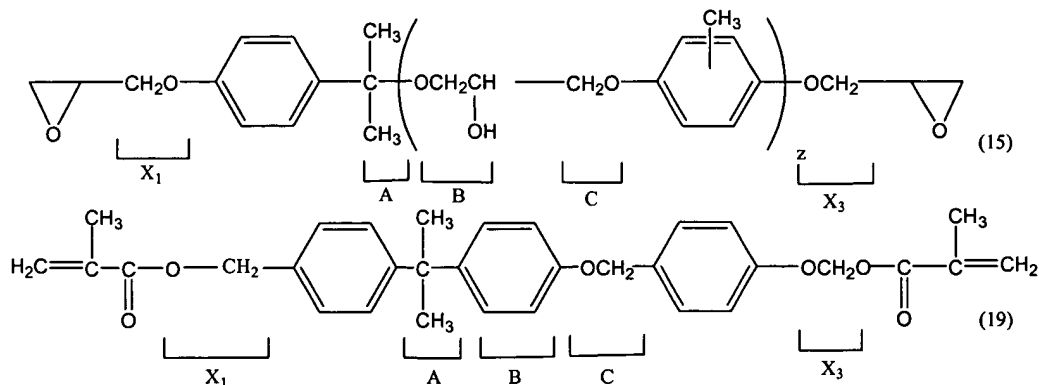
Amendments to the Specification

Formula 19 on page 40 of the specification has been amended. The right side of the chemical formula had been mistyped, and $-\text{CH}_2-\text{O}-\text{O}-\text{CO}-\text{C}(\text{CH}_3)=\text{CH}_2$ should have been typed as $-\text{OCH}_2-\text{O}-\text{CO}-\text{C}(\text{CH}_3)=\text{CH}_2$. The formula has been corrected by this amendment. Support for the amendment is provided by reference to formula 19 as shown in the foreign priority document, JP 10-283142, which was filed with and incorporated by reference into the parent application 09/409,078, now U.S. Patent 6,537,723. An additional copy of the JP priority document is enclosed for the convenience of the Examiner.

Amendments to the Claims

Claim 15, drawn to a photosensitive composition, has been amended to recite organic oligomers that are species selected from the family of oligomers previously recited in the Claim. The species falls within the claim scope of the previously recited oligomer and are further defined by limiting X_1 and X_3 to alkyleneoxy or oxyalkylene; changing X_2 to be defined as A-B-C, wherein A denotes a connection group selected from an alkylene group, B denotes a connection group selected from a substituted or unsubstituted phenylene and a substituted or unsubstituted oxyalkylene, and C denotes a connection group selected from alkyleneoxy and oxyalkylene; and z is introduced as 0 to 2.

This amendment to Claim 15 is supported by formula (15) on page 33 of the specification and formula (19), as amended, on page 40 of the specification, respectively.



As shown in the formulae, support for the alkyleneoxy and oxyalkylene of X₁ and X₃ is provided by the exemplary -CH₂O- and -OCH₂- groups located adjacent to the epoxy groups of formula 15 and located adjacent to the methacrylate groups of formula 19. X₂ is divided into the group A-B-C, wherein A denotes an alkylene connection group, B denotes a substituted or unsubstituted phenylene or oxyalkylene connection group, and C denotes an alkyleneoxy or oxyalkylene connection group. Support for the recitation of group A is provided by the CH₃-C-CH₃ group located adjacent the phenylene group in the formulae (15) and (19). Support for the recitation of group B is provided by the OCH₂C(OH)H group in formula (15) and the phenylene group in formula (19), each located adjacent to the CH₃-C-CH₃ group in their respective formulae. Support for the recitation of group C is supported by the -CH₂O- positioned adjacent to the methyl substituted phenylene in the formula (19) and the -OCH₂- group positioned adjacent to the phenylene in the formula (15).

Claim 16 has been rewritten in independent form and has been otherwise amended to overcome the pending indefiniteness rejection. Claim 18 is cancelled. Claim 19 has been rewritten in independent form and has been otherwise amended to overcome the pending indefiniteness rejection. Claim 20 is cancelled. Claims 21 - 27 are new and are supported by formulae (15) and (19) on pages 33 and 40 of the specification and the above description as applied to amended Claim 15.

Pending Rejections

Claims 15 and 17 stand rejected under 35 U.S.C. §102(b) in view of Tsuji '965. Claim 15 has been amended to recite a specific type of organic oligomer as shown in the claims and Claim 17 refers to the photosensitive composition claimed in Claim 15. Of note, the organic oligomer is characterized by a B-C group as described above.

Tsuji '965 discloses a photopolymerizable composition containing an oligomer such as a bisphenol type oligomer as shown in Compound-4. However, the organic oligomers of Claims 15 and 17 are not disclosed in Tsuji '965. Specifically, none of the oligomers disclosed in Tsuji '965 teach or suggest a portion having the B-C segment as recited in Claims 15 and 17. Because the claims, as amended, are not taught or suggested by the Tsuji '965 reference, the rejection of Claims 15 and 17 under 35 U.S.C. §102(b) has been overcome.

Claims 15 and 17 stand rejected under 35 U.S.C. §102(e) in view of Schon '881. Schon '881 discloses a composition comprising a reaction resin mixture containing bisphenol-A-diglycidyl ether and a cationic polymerization initiator. However, Schon '881 does not teach or suggest the organic oligomer of Claims 15 and 17, as amended. Specifically, the compounds contained in the mixtures described in Schon '881 do not include a portion having the B-C segment as recited in Claims 15 and 17. Because the claims, as amended, are not taught or suggested by the Schon '881 reference, the rejection of Claims 15 and 17 under 35 U.S.C. §102(e) has been overcome.

Claims 18 and 20 stand rejected under 35 U.S.C. §102(b) in view of Kita JP '839. Claims 18 and 20 have been cancelled, thereby obviating the 35 U.S.C. §102(b) rejection.

The newly added claims are patentable over the cited references for at least the reasons discussed above with respect to Claims 15 and 17.

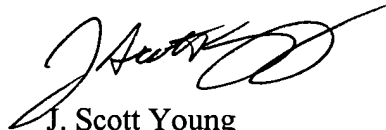
Conclusion

In view of the amendments and remarks made above, Applicant submits that the pending claims are now in condition for allowance. Applicant respectfully requests that the claims be allowed to issue. If the Examiner wishes to discuss the application or the comments herein, the Examiner is urged to contact the undersigned by telephone.

Appl. No.: 10/803,393
Amdt. dated 12/10/2004
Reply to Office action of July 23, 2004

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

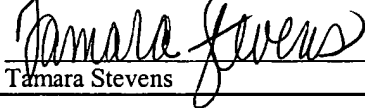


J. Scott Young
Registration No. 45,482

Customer No. 00826
ALSTON & BIRD LLP
Bank of America Plaza
101 South Tryon Street, Suite 4000
Charlotte, NC 28280-4000
Tel Charlotte Office (704) 444-1000
Fax Charlotte Office (704) 444-1111

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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on December 10, 2004



Tamara Stevens